

**SAFETY DATA SHEET (SDS)**

Agro-K Corporation

**I. PRODUCT AND COMPANY IDENTIFICATION**

Product Name: Top-Set D.L.  
 Common Name: Liquid fertilizer  
 Identified Uses: Intended for agriculture. Not for human consumption.

Supplier: AGRO-K CORPORATION  
 8030 MAIN STREET NE  
 MINNEAPOLIS, MN 55432  
 Telephone: (763) 780-4116 / (800) 328-2418  
 FAX: (763) 780-4316

CHEMTREC  
 Emergency Telephone: (800) 424-9300

**II. HAZARDS IDENTIFICATION**

Classification:  
 Skin Irritant 2 H315  
 Eye Irritant 2A H319  
 STOT RE 2 H335  
 Inhalation Acute 4 H332  
 Reproductive Toxicity 2 H361



Hazard pictogram:

Signal word: Warning  
 Hazard statements: H315 – Causes skin irritation  
 H319 – Causes serious eye irritation  
 H332 – Harmful if inhaled  
 H361 – Suspected of damaging fertility or the unborn child through ingestion  
 H335 – May cause damage to kidneys, liver, or central nervous system through prolonged or repeated inhalation or ingestion

Precautionary statements: P261 – Avoid breathing mix and spray  
 P264 – Wash thoroughly after handling  
 P271 – Use only outdoors or in a well-ventilated area  
 P273 – Avoid release to aquatic environment  
 P280 – Wear protective gloves/clothing/eyewear/face  
 P281 – Use personal protective equipment as required  
 P201 – Read and follow label instructions before use  
 P202 – Do not handle until all safety precautions have been read and understood.  
 P302+P352 – If on skin: Wash with plenty of soap and water  
 P304+P340 – If inhaled: Remove person to fresh air and keep comfortable for breathing  
 P308+P313 – If exposed or concerned: Get medical advice/attention  
 P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 – Call a poison center/doctor if you feel unwell  
 P332+P313 – If skin irritation occurs: Get medical advice/attention  
 P337+P313 – If eye irritation occurs: Get medical advice/attention  
 P362 – Take off contaminated clothing and wash before reuse  
 P405 – Store in a secure well-ventilated area. Keep container tightly closed  
 P501 – Dispose of contents/container in accordance with local/regional/national regulations

**III. COMPOSITION/INFORMATION ON INGREDIENTS**

Agro-K Corporation

Chemical Compound	CAS Number
Boric Acid	10043-35-3
Monoethanolamine	141-43-5
Ammonium Molybdate	12054-85-2

\*Ingredients not specifically listed are non-hazardous and are considered to be confidential

#### IV. FIRST AID MEASURES

If in Eyes:	Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops and persists, call a poison control center or doctor immediately for treatment advice.
If on Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
If Swallowed:	Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything to an unconscious or convulsing person. Call a poison control center or doctor immediately for treatment advice.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. If irritation or dizziness occurs, call a poison control center or doctor for further treatment advice.

Hotline Number: Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency, call ChemTrec at 1-800-424-9300.

#### V. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Foam. Dry Powder. Carbon dioxide. Water spray. Sand. Use extinguishing media for underlying cause of fire.
Advice for firefighters:	Wear self-contained breathing apparatus and full protective equipment. Use water spray to cool containers exposed to heat and flame. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Hazardous combustion products:	Toxic gases may be formed in a fire situation. Carbon monoxide and other asphyxiates may form as well.
Unusual fire and explosion hazards:	If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

#### VI. ACCIDENTAL RELEASE MEASURES

Spill procedure:	Capture product and reuse material if uncontaminated. If contaminated, place in a suitable container for proper disposal. Do not allow spilled product to enter water supplies. Contain spilled liquid by diking area.
Clean-up	Cover contained spill with inert absorbent material (sand, vermiculite, etc.). Vacuum, scoop, or sweep up material and place in container for disposal.
Protective equipment:	Equip cleanup crew with proper protection.
Emergency procedures:	If indoors: ventilate area

#### VII. HANDLING AND STORAGE

Precautions for safe handling:	Wash hands and exposed areas with soap and water before eating, drinking, or smoking. Provide good ventilation in process area. Avoid breathing mist or spray.
Storage Conditions:	Keep in closed container and properly labeled. Galvanized steel, copper, and copper based alloys should not be used in contact with this material.
Minimum storage temperature:	0 degrees C (32 degrees F)

### VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Compound	CAS Number	ACGIH TLV	OSHA PEL	NIOSH REL
Boric Acid	10043-35-3	2 mg/m <sup>3</sup> (TWA) 6 mg/m <sup>3</sup> (STEL)		
Monoethanolamine	141-43-5	3 mg/m <sup>3</sup> (TWA) 6 mg/m <sup>3</sup> (STEL)	3 ppm, 6 mg/m <sup>3</sup> (TWA) 6 ppm, 15 mg/m <sup>3</sup> (STEL)	3 ppm, 8 mg/m <sup>3</sup> (TWA) 6 ppm, 15 mg/m <sup>3</sup> (STEL)

Personal protective equipment:	Avoid all unnecessary exposure. Wear long sleeve shirt, long pants, and chemical resistant footwear with socks to prevent skin contact.
Hand protection:	Wear protective gloves.
Eye protection:	Wear chemical goggles or safety glasses and full face shield.
Respiratory protection:	When exposure to mist or spray is possible, wear NIOSH approved respirator with cartridges/canisters approved for organic vapors.
Other information:	Do not eat, drink, or use tobacco during use. Practice good hygiene after use of this material; especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

### IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical description:	Liquid
Color:	Clear colorless to yellow/orange.
Odor:	Fishy, amine-like
Odor threshold:	No data available
Vapor density:	No data available
pH:	No data available
Relative density:	1.29
Melting/freezing point:	0 degrees C (32 degrees F)
Solubility:	Soluble in water
Boiling point:	No data available
Flash point:	No data available
Flammability:	No data available
Vapor Pressure:	No data available
Partition coefficient:	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

### X. STABILITY AND REACTIVITY

Chemical stability:	Stable.
Conditions to avoid:	Extreme heat.
Incompatibility with other materials:	Strong oxidizing agents, strong bases and acids.
Hazardous combustion:	Will not occur.
Hazardous polymerization:	Will not occur.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide, oxides of boron

### XI. TOXICOLOGY

<b>Potential acute toxicity:</b>	
<b>Eyes:</b>	May cause serious eye irritation.
<b>Skin:</b>	Estimated LD50 = 2000 mg/kg (based on component data); may cause skin irritation

**Inhalation:** May cause respiratory irritation and effects on the central nervous system.  
**Ingestion:** Estimated LD50 = 2800 mg/kg.  
**Specific target organ toxicity:** Components have demonstrated toxicity to the central nervous system, kidneys, and liver upon repeated doses.

**Potential chronic toxicity:**

**Chronic effects:** Boric acid has been demonstrated to have an effect on male fertility and the development of an unborn child.

**Carcinogenic effects:** No known significant effects or critical hazards.

**Mutagenic effects:** No known significant effects or critical hazards.

**Reproductive toxicity:** Boric acid has been demonstrated to have an effect on male fertility and the development of an unborn child.

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## XII. ECOLOGICAL INFORMATION

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**Aquatic ecotoxicity:** Not determined  
**Biodegradability:** Not determined  
**Environmental Precautions:** No known significant effects or critical hazards  
**Mobility:** Not available  
**Other Adverse Effects:** No known significant effects or critical hazards

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## XIII. DISPOSAL CONSIDERATIONS

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**Waste Disposal Method:** This material must be disposed of according to federal, state, or local procedures under the resource conservation and recovery act.  
**Container Disposal:** Triple rinse and dispose of in accordance the federal, state, and local laws and regulations

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## XIV. TRANSPORT INFORMATION

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Shipping Name: Not regulated by DOT  
Hazard Class: None  
Identification No.: None  
Labels Required: None  
Placarding: None

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## XV. REGULATORY INFORMATION

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TSCA Inventory: All components are listed on the TSCA inventory.

**SARA Title III Information:**

Section 302: None listed  
Section 311/312: Immediate (Acute), Delayed (Chronic)  
Section 313: None listed

CERCLA: None listed

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

U.S. State Worker and Community Right-To-Know (RTK) Information:  
Monethanolamine - CAS 141-43-5 – MA, NJ, PA

Canadian Domestic Substances List: All components are listed.

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## XVI. OTHER INFORMATION

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Agro-K Corporation

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Agro-K's knowledge. Agro-K Corporation makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

Last Revised: January 27, 2023